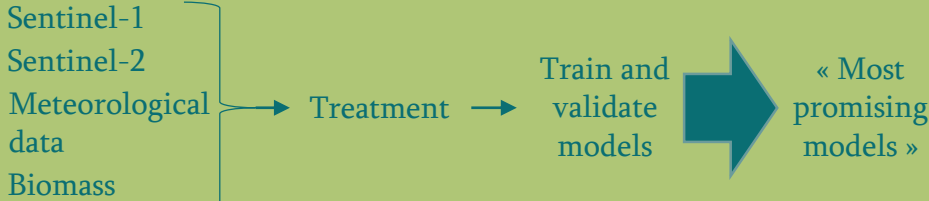


Validation of a workflow based on Sentinel-2, Sentinel-1 and meteorological data predicting biomass on pastures

Nickmilder, C.^{1*}, Tedde, A.¹, Dufrasne, I.^{1,2}, Lessire, F.¹, Tychon, B.¹, Curnel, Y.³, Bindelle, J.¹, and Soyeurt, H.¹

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Previously



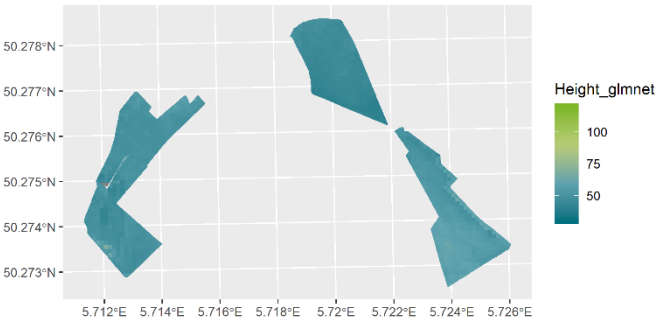
How good is it?

To assess the performances of these models, a graphical analysis of the prediction and the analysis of the Residual prediction deviation (RPD)

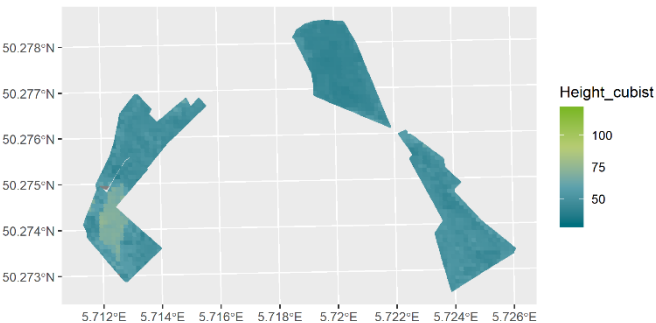
model	RPD Parcel	RPD SubParcel
cubist	0.79	0.81
glmnet	0.00	0.00
nnet	0.89	0.89
rf	0.94	0.93

*RPD = standard deviation divided by the root mean square error

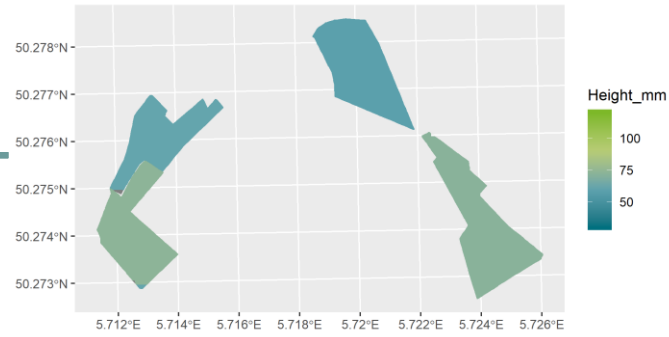
Generalised Linear Model with elasticnet regularization (glmnet) model prediction



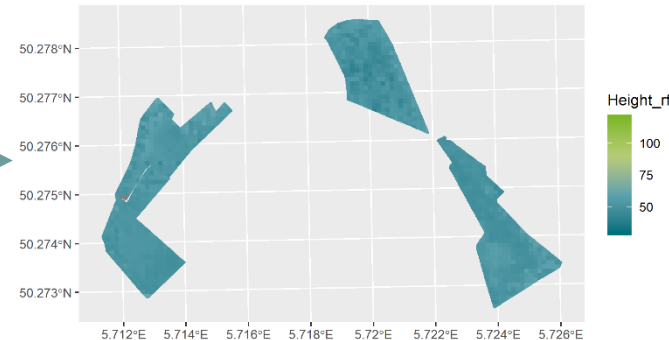
Cubist model prediction



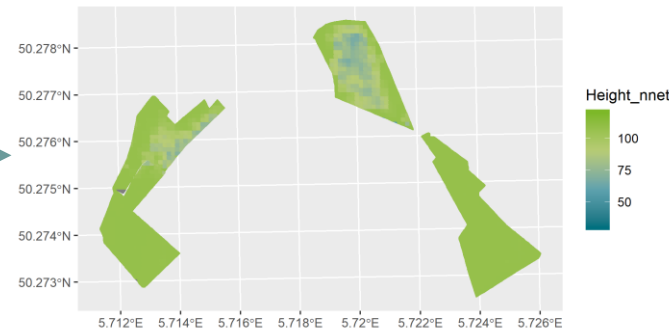
Original dataset



Random forest (RF) model prediction



Neural network (nnet) model prediction



Conclusion

The RPD and the graphs indicate that there is a huge variability in the prediction made by the previously developed models. Moreover, the combination of the output of the different models gives results that indicate a greater predictive power.